

# Notice of Allowability

Application No.

10/525,069

Examiner

Naghmeh Mehrpour

Applicant(s)

HIRAI ET AL.

Art Unit

2617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Remark filed on 04/03/06.
2. ☒ The allowed claim(s) is/are 1-21.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All b) ☐ Some\* c) ☐ None of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

## Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date \_\_\_\_\_
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

**DETAILED ACTION**

***Allowable Subject Matter***

1. **Claims 1-21**, are allowed.

The following is an examiner's statement of reasons for allowance:

Regarding **claims 1, 5-6, 13**, The present application teaches a reception processing unit measures reception states of input reception signals of each of a plurality of channels, generates local channel reception information, and applies a reception processing to the input reception signals to generate decoded signals. A media-access-control unit generates transmission frames for each of the channels using transmission data. A transmission processing unit generates radio signals including each of the transmission frames. A channel-information processing unit generates local feedback information, and inserts the local feedback information generated into at least one of the radio signals that are transmitted by the radio communication apparatus as specifically mention in claims 1, 5-6, 13.

The closest such as Cho et al. (US Publication 2005/0043031) teaches multi-iuser Multiple Input Multiple Output (MIMO) radio communication system; a transmitter receives channel quality information transmitted from receivers, schedules resource for the receivers within a corresponding scheduling epoch based on the received channel quality information. Thereafter, the transmitter pre-codes signals to be transmitted to the resource-scheduled receivers in a predetermined coding method before

transmission, thereby maximizing system transmission efficiency. Cho fails to teach a media-access-control unit generates transmission frames for each of the channels using transmission data. A channel-information processing unit generates local feedback information, and inserts the local feedback information generated into at least one of a radio signals that are transmitted by the radio communication apparatus.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### **Conclusion**

**2. Any responses to this action should be mailed to:**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Naghmeh Mehrpour whose telephone number is 571-272-7913. The examiner can normally be reached on 8:00- 6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha Banks-Harold be reached (571) 272-7905.

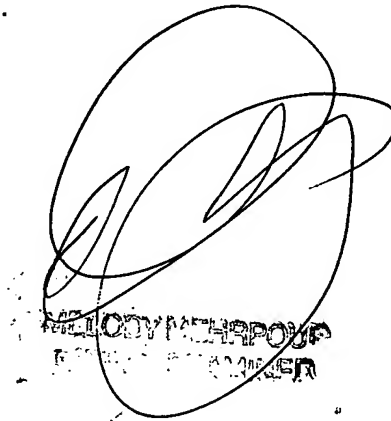
The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

NM

November 6, 2006

A handwritten signature in black ink is written over a circular stamp. The signature is a cursive, stylized name. The stamp is circular and contains the text "PATENT APPLICATION" at the top and "NOV 6 2006" at the bottom, indicating the date of filing or processing.